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HOUSEKEEPERS' CHAT

Friday, March 20, 1936

(FOR BROADCAST USE ONLY)

Subject: "FIBER AND WATER." Information from the Bureau of Home Economics, United States Department of Agriculture.

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Whenever the conversation turns to food and its value, you are sure to hear a good deal about the nutritive content of food -- the parts of food that nourish the body. You hear that this dish has good energy-value and that that dish is rich in protein, or minerals, or vitamins.

But you don't hear much about other parts of food that are very valuable in spite of the fact that they have no nutritive value. For example, you don't hear much about the water-content of food, or about the fiber-content. And these deserve appreciation.

The foods people say that all foods contain water -- all foods, whether they are solid or liquid, dry or moist. For example, bread contains usually about 35 percent of water. Fruits and juicy vegetables are often as much as 90 to 95 percent water. The water-content of potatoes is about 78 percent. Even dried grain or dried peas and beans contain a little water. And this water in the foods we eat helps make up the total supply which our bodies need for many vital processes.

Of course, food furnishes only a small part of our daily water needs. Everybody needs to drink a good deal of water every day whether he feels thirsty or not. The daily water ration for a human being is, or should be, around 6 to 8 glasses. People who drink a good deal of coffee, tea, or other beverages, or have soup often with meals can afford to drink less plain water. But most people probably do not drink as much water as would be good for them.

Water has a many-sided role to play in the diet. The body carries in its tissues a supply of water which equals almost two-thirds of body-weight. This supply keeps all the body tissues in shape -- literally in shape and form, as well as in normal condition in other ways. Water in the digestive tract helps dissolve food which the body can't use until it is in solution. In the digestive tract water helps make bulk which helps move food and waste. About 80 percent of blood is water, and blood carries the digested food to all parts of the body for use. Blood also carries off waste products. By evaporation through the skin, water controls the body temperature.

But the water supply in the body is in constant use so it needs constant replacing. The lungs give off water in breath; the skin gives it off in perspiration, visible or invisible; and the kidneys give it off as a waste product. In one way or another the body gives off something like 2 to 5 quarts of water a day. The only way we make up that loss is in the water we drink and the water we take in our food.

But valuable as water is, it does not nourish the body. And some of our familiar liquid foods have less total nutritive value than most people realize because of the water they contain. Clear soup, or any soup not made with milk, has only the food value of the ingredients other than water -- which are comparatively slight. Many people have an idea that beef broth is a fine beverage for "building up" or "nourishing" an invalid. As a matter of fact, consomme and meat broth are 95 to 97 percent water and only 3 to 5 percent solids. So they have very little actual food value. Their value lies chiefly in their flavor, in the fact that they stimulate the appetite, and also in the fact that they are warm and cheering. Vegetable soup has more solids, and therefore more food value. But milk has 13 percent solids and is highly nutritious. Milk soup and chowder have the milk values added to the values of whatever vegetables, meat, fish or other ingredients it contains.

Clear beverages like clear soups are largely water -- have only the food value of their other constituents. Coffee and tea in themselves have practically no nutritive value. When you add cream and sugar, they then have the nutritive value of cream and sugar. So-called "soft drinks" or carbonated beverages have the calorie value of the sugar they contain along with any minor values in their flavoring. But a milk drink, like a milk soup, contains nourishing milk solids as well as such other nourishing ingredients as sugar, or the fat and protein of chocolate.

Some fruit and vegetable juices are rich in vitamin value and also contain minerals and sugar. Orange juice, for example, and lemon, grapefruit and tomato juice as well as pineapple, peach, apricot and some berry juices, are all good sources of vitamin C.

So much for the water-content of our food. Now about the fiber -- the framework of cereals, vegetables, fruits and nuts. This fibrous material is useful in our diet oddly enough because we can't digest much of it. Its uses are mechanical. It helps to keep food particles from forming a compact mass which the digestive juices would have difficulty in penetrating. Fibrous material also helps hold water so adds to its bulk. And this bulk in our diet promotes activity of the intestinal muscles.

The fiber in food varies all the way from the rough bran or seed-coats of grain and the seeds, cores and skins of fruits, to the soft fiber in the flesh of cooked fruits and vegetables. Cooking softens fiber and makes it more tender. That is one good reason for cooking cereals, vegetables and fruits. Even bran becomes soft from cooking. You have probably noticed that when you have cooked whole-grain cereals. The softest fiber of all is in puree -- the pulp of cooked and sieved vegetables, such as pea and bean puree for soup, or vegetable puree, or prune puree for prune whip.

The nutritionists who recommend 2 or 3 servings of vegetables and some fruit every day, cooked or raw, make this recommendation not only for the mineral and vitamin values of these foods but also for their fiber values.

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